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December 1, 2004

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street SW
Washington DC 20554

Re: RM-11043, *More Flexible Antenna Rules for the 10.7-11.7 GHz Band*

Dear Ms. Dortch:

On behalf of FiberTower Corp. and pursuant to Section 1.1206(b)(2) of the Commission's Rules, I am electronically filing this letter to report an oral *ex parte* communication in the above-referenced docket.

Yesterday, Eric Botto and Tarun Gupta of FiberTower and I met with John Schauble, Brian Wondrack, Michael Pollak, and Steven Buenzow (by phone) of the Commission staff. We discussed FiberTower's request for a waiver pending the rulemaking proceeding, and touched on some of the matters at issue in the rulemaking.

A copy of our presentation outline is attached.

Please do not hesitate to call with any questions.

Respectfully submitted,

Mitchell Lazarus
Counsel for FiberTower Corp.

cc: Meeting participants

FiberTower Corp

Request for Waiver to Allow 2 Foot Antennas in the 10.7-11.7 GHz Fixed Service Band

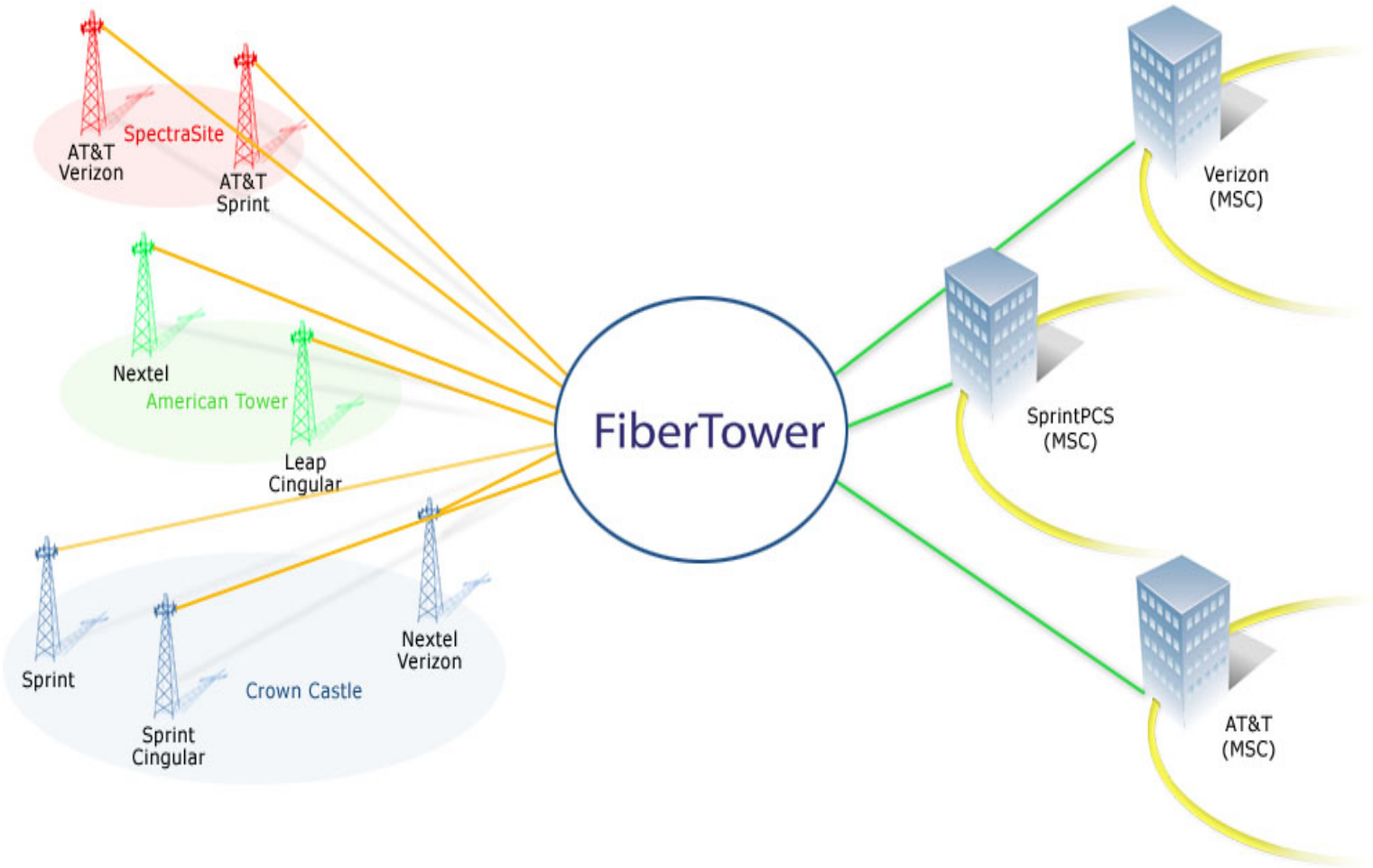
November 30, 2004

About FiberTower - Investors

FiberTower

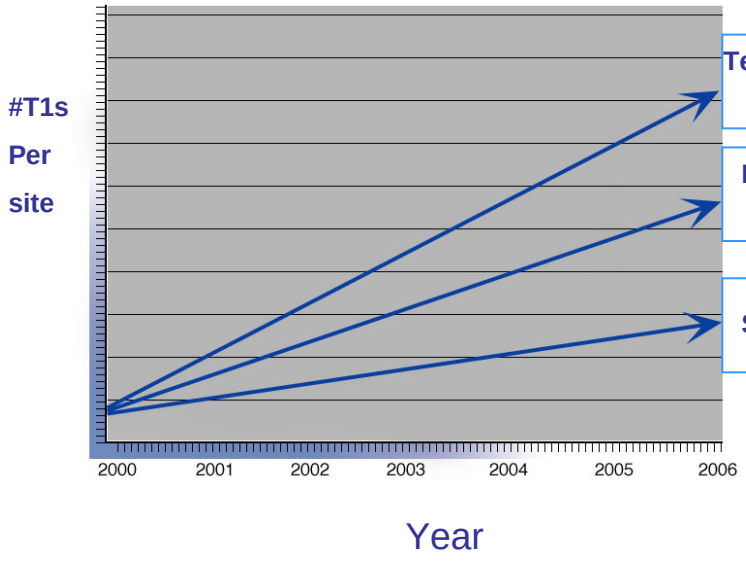
FiberTower is partnered with the top tower owners in the United States

About FiberTower – What we do



FiberTower is a cellular backhaul provider

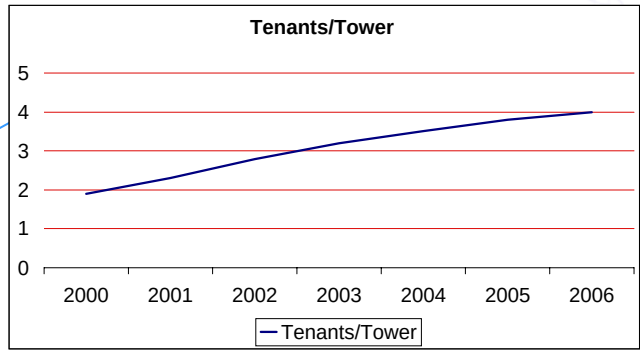
About FiberTower – Business Problem

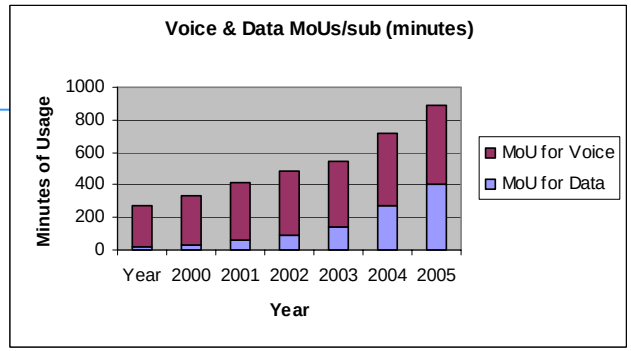


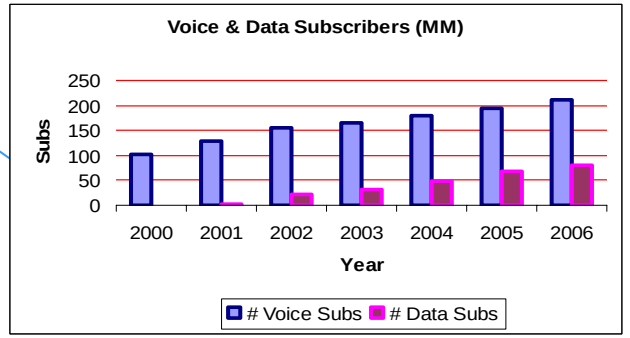
Tenancy

MoU

Subs







Cell site bandwidth growing > 20% annually

About FiberTower – What we provide

- Cost Savings
- Network Performance Improvements
- Viable Alternative To the LEC
- No CAPEX

FiberTower provides true competition in a monopoly environment

Frequency Band Usage

Frequencies	Licensed Paths	Licensed Freqs	Path %	Freq %
4 GHz	412	2239	1.0%	4.1%
6.1 GHz	10644	19301	26.1%	35.2%
6.7 GHz	14920	15229	36.6%	27.8%
10 GHz	2421	2433	5.9%	4.4%
11 GHz	3565	5954	8.7%	10.9%
18 GHz	4160	4324	10.2%	7.9%
23 GHz	4663	5316	11.4%	9.7%

The 11 GHz band not heavily used

Data provided by Comsearch
Data as of September, 2004
Does not include 900 MHz, 1.9 GHz, 2.1 GHz, or 18 GHz Video Paths

Frequency Band Characteristics

Frequencies	Typical Path Length	Maximum Channel Bandwidth	Maximum Channel Capacity	Minimum Dish Diameter	Typical Weight, including mount
4 GHz	20+ Miles	20 MHz	DS-3+	8 Ft	500 lbs
6.1 GHz	20+ Miles	30 MHz	OC-3	6 Ft	360 lbs
6.7 GHz	20+ Miles	10 MHz	DS-3	6 Ft	360 lbs
10 GHz	10 Miles	5 MHz	16 x T1	2 Ft*	33 lbs
11 GHz	15 Miles	30 MHz	OC-3	4 Ft	126 lbs
11 GHz	8 Miles	30 MHz	OC-3	2 Ft (proposed)	33 lbs
18 GHz	4 Miles	80 MHz	OC-3, OC-3+	2 Ft	33 lbs
23 GHz	2 Miles	50 MHz	OC-3	1 Ft	21 lbs

There is a need for a medium path length, high capacity, low profile solution

* July 2002 – The FCC relaxed the antenna standards required for 10 GHz systems
Antenna weight & cost data provided by Andrew Corporation, Catalog 38

Procedural Background

- Present rules require the Fixed Service to use 4-foot antennas at 10.7-11.7 GHz
- On May 26, 2004, FiberTower filed a Petition for Rulemaking to allow 2-foot antennas
  - FiberTower proposed conditions that put any burden on small-antenna user
- Public Notice released July 23, 2004 (RM-11043)
- Several comments in support; one in opposition (Satellite Industry Association)
  - FiberTower amended its proposal to accommodate SIA
- Request for waiver pending rulemaking filed October 22, 2004.

Advantages of 2-Foot Antennas

- Two-foot antennas are 1/3 the cost,1/4 the weight, and 1/4 the area of the four-foot antennas now required
- Sample applications:
  - cellular backhaul
  - backhaul for broadband delivery (*e.g.*, Broadband over Power Line, Fiber-to-the-Curb, Advanced Wireless Services)
  - broadband Internet access for schools, businesses, apartment buildings
  - interconnection of industrial campuses
- Last-mile delivery and broadband backhaul to locations otherwise impractical for radio
- Ideal for residential areas
  - far less obtrusive than 4-foot antennas

2 foot vs. 4 foot Antenna – Tower Installation

Public Interest

- Better compatibility with local zoning, homeowners' associations, etc.
- Access to locations not available to large antennas
- Reduced costs to end users
- New competition with fiber and other broadband delivery
- More efficient use of 10.7-11.7 GHz spectrum
- Reduce pressure on other FS bands
- Easier relocation of FS licensees displaced by new satellite operations
  - 11 GHz is suitable for long links (unlike 70/80/90 GHz)

Proposed Coordination Rules

1. A 2-foot antenna user may object to a coordination (a) only if it predicts received interference, and (b) only to the extent a 4-foot antenna user could object.
2. An applicant for a 4-foot antenna **or a Fixed Satellite Service earth station** that predicts received interference from a 2-foot antenna user can require the 2-foot user to reduce the predicted interference to the levels predicted from a 4-foot antenna.

These rules ensure no other spectrum user can be disadvantaged by a 2-foot antenna.

Proposed Waiver Conditions

- Waiver subject to the outcome of the rulemaking
  - if rules are not adopted, licensees may have to retrofit or remove antennas to achieve compliance
- FiberTower will limit installations under the waiver to 500 units per year
  - and will maintain records of licensee, call sign, location

Comments in Support of Rulemaking

- NextWeb, Inc.
  - uses licensed microwave for redundant wireless backbones and to deliver high-speed network traffic
- Alcatel
  - leading manufacturer of microwave radio products
- Fixed Wireless Communications Coalition
  - coalition of companies, associations, and individuals interested in terrestrial fixed microwave communications
- Comsearch
  - specializes in spectrum management of terrestrial microwave, satellite, and mobile telecommunications systems.

Alcatel Study Summary

- Alcatel independently studied 22 distinct cases of interference potential, varying path length, off angle discrimination, etc.
- Alcatel concludes that using 2 foot antennas limits path lengths, reducing the potential for harmful interference
- The lower discrimination is offset by the decreased radiated power out of the smaller antenna
  - 5 - 10, 30 - 100 degrees, maximum of 0.1 dB *increase* in interference into the environment
  - all other angles have decreased interference potential into the environment

Alcatel (filed September 7, 2004)

Comment Opposed to Rulemaking

1. Satellite Industry Association asked for a change in proposed rules to better protect earth stations
   - FiberTower agreed
2. Satellite Industry Association fears more use of the 11 GHz band could hinder coordinating new earth stations
   - but satellite use of the band is limited to international systems -- fewer than 140 earth stations nationwide
   - SIA essentially opposes efficient use of the spectrum
   - SIA has no valid basis to oppose the waiver or rule change

Spectrum Users Adversely Affected by the Waiver

(none)

Conclusion

- A waiver pending the rulemaking will:
  - benefit the public immediately (easier access, better esthetics, reduced costs, etc.)
  - increase competition
  - improve spectrum efficiency
- No disadvantage to any spectrum user
- No risk to the Commission
  - waiver will be subject to outcome of rulemaking
- The Commission should grant the waiver promptly

Thank you!

FiberTower Corp

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